

## THE SOUTHERN ZONE OF CHICAGO'S INNER REGION

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This is a progress report on one phase of the Chicago Region Project, a project I share with Dr. Mayer, Department of Geography, University of Chicago. We are studying the relationships between the major types of Chicago establishments and those of the larger region for which Chicago is the nodal core. I am attempting to develop and apply a new approach to the mapping of land uses, particularly in the 30,000 square mile area in the 60 counties within 100 miles of the Chicago Loop (fig. 1.).

The southern zone of Chicago's inner region is described in terms of a land-use map made on a scale of half an inch to a mile of major parts of 10 counties within Chicago's inner region (the territory within 100 miles of the central part of the city). The paper is divided in three parts: (1) description of the map terms, (2) discussion of the patterns of urbanization outward from the limits of commonly accepted definitions of urban Chicago (the standard metropolitan and urbanized area definitions of the U. S. Census), and (3) interpretation of the southern zone of Chicago's inner region.

The map is a record of the observed associations of three different types of gross land use. These are agricultural, nonagricultural, and nonfarm residential uses of land. These occur in two types of locations. These are in towns, villages, and cities, characterized by a block

pattern of transportation and land subdivision, and in the open country, characterized by the sections and quarter sections of the rectilinear survey.

Instead of taking the time in the field to ascertain the limits of homogeneity of land use, the homogeneity or mixture of land uses was recorded by means of an appropriate color within the block-unit areas in towns, villages, and cities, and within quarter-section unit areas in the open country. The results are a land-use map showing the location of a three-fold classification, in the case of block-type settlement, and a seven-fold one, in the case of open-type settlement. The classification used in the map (fig. 2) for gross land uses per unit area is as follows:

Block-type settlement in city blocks:

1. homogeneous residential
2. homogeneous business-industrial
3. mixed residential and business-industrial

Open-type settlement in quarter sections:

1. homogeneous agricultural
2. homogeneous residential
3. homogeneous business-industrial
4. mixed residential-agricultural
5. mixed residential-business industrial
6. mixed agricultural-business industrial
7. mixed residential-agricultural-business industrial

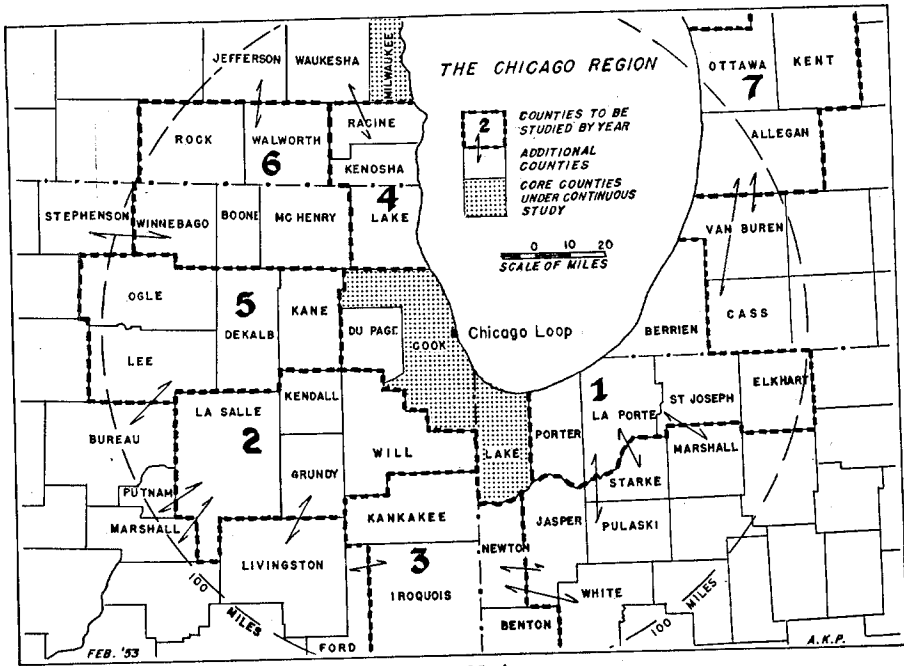


FIGURE 1.

In looking at figure 2, it is important to remember that the distinction between the grey random-dot pattern (which covers more unit areas than any other) and all other categories is that between homogeneous agriculture and the presence of some kind of nonagricultural land use within each unit area. It should also be noted that nonagricultural uses recorded are either in association with agriculture, by themselves (homogeneously), or in some combination of land use not including farming. In figure 2 all combinations or mixtures of land uses are generalized as black in open settlement areas and as white in areas of block-type settlement, unless specifically shown by other symbols. Figure 2 is thus a generalized reproduction of the original land-use map made in the field and should be

viewed with the above points in mind. The counties shown are from west to east: LaSalle, Grundy, Will, and Cook counties, Ill.; Lake, Porter, LaPorte, St. Joseph, and Elkhart counties, Ind.; and Berrien County, Mich.

The pattern of unit areas colored black shows substantially the localization of the population enumerated by the census under the heading of rural nonfarm population. This type of population numbered 247,300 persons in the eleven counties in 1950. The rural nonfarm population, leaving out Cook County, represents one-sixth of the total population. If Lake and St. Joseph counties, Ind., which contain the major urban agglomerations of the Chicago region in Indiana, are left out, the proportion of the rural nonfarm population in the remaining 8 counties repre-

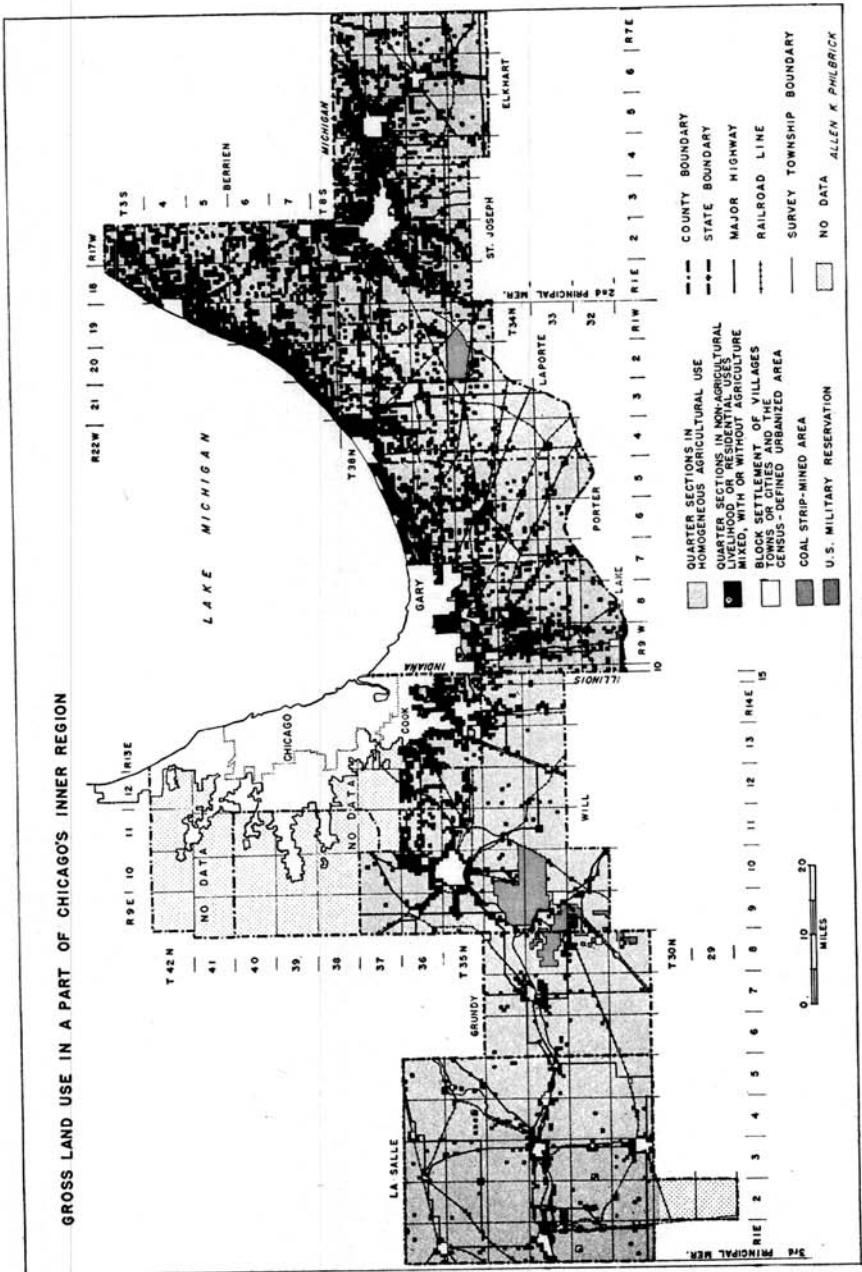


FIG. 2.

serts one-fourth of the total population, numbering 152,300 persons. The pattern of residential land use is closely associated with major lines of transportation, both rail and highway, radiating from the major urban centers and with the towns and cities located along those radiating lines of movement. In addition there is a scattering of such urban establishments on county and township roads between major lines of access to the major urban cores of the Chicago region. This pattern tends to coalesce and become thicker towards the hub of the wheel of radiating lines of access to Chicago and the industrial cities of northwestern Indiana in Lake County.

If one examines the boundaries of the urbanized area (according to the census definition) shown in figure 2, the extension beyond the limits of the urbanized area of land use of an urban type affords an opportunity to define somewhat more broadly what I shall refer to as "the geographical city" of Chicago, as distinct from the political or municipal city, the census definition of the urbanized area, and the standard metropolitan area.

In order to quantify the generalization of the geographical city from the pattern of gross land uses as mapped, the following steps were taken. The township and range survey system was used as the basis for defining a pattern of squares, each 3 miles on a side (9 square miles). Within each 9-square-mile unit area there are 36 quarter sections. A count was then made of the homogeneously agricultural quarter sections per unit area. On the basis of this tally an isopleth map

(fig. 3) was prepared showing the percentage of nonhomogeneously agricultural quarter sections. The graded patterns show the percentage of quarter sections having some non-agricultural land uses. They grade by 25 percent intervals from black through progressively lighter patterns to the lightest, which signifies that none of the 36 quarter sections within the unit area has nonagricultural establishments.

The geographical definition of an urban area need not necessarily employ the criterion of contiguity of urban establishments. Nor need it employ limits excluding the presence of agricultural land use within an urban context. In a very real sense the proportion of land used for agricultural purposes may be thought of as extending through the entire range from complete homogeneity of agricultural use to complete absence. The scale of unit areas employed will determine the arbitrary limits of any urban area one wishes to define for specific purposes.

If allowance is made for generalization, the area in figure 3 between the limits of 75 to 100 percent of quarter-section unit areas per 9 square miles having some non-agricultural establishments approximates the boundary of the urbanized area.

A definition intermediate between the urbanized area and the standard metropolitan area is appropriate. Its limits would approximate the line enclosing the area in figure 3, wherein one-fourth or more of the quarter section-unit areas per 9-square-mile unit have nonagricultural uses of land singly, in various combinations, or mixed with agricultural land use. On the basis of this definition and

degree of generalization, there exists a continuity of urbanization from the vicinity of Morris, Grundy County, Ill., on the west, to Goshen, Ind., 140 miles to the east in Elkhart County, Ind.

If the establishments of the Chicago urbanized area are thought of as the core, the irregularly shaped intermittently urbanized periphery, just defined in terms of the land-use map, may be divided into the following parts:

1. The Upper Illinois River Valley from Morris northeastward to Chicago.

2. The extension of the Chicago Heights axis southward into Will County.

3. The Gary-Crown Point axis and its extension southward beyond the Kankakee River (the southern boundary of Lake County, Ind.).

4. The Valparaiso moraine area to Lake Michigan in Porter County, Ind.

5. The Michigan City, Laporte, Kingsbury Ordnance axis of Laporte County, Ind.

6. The Niles, South Bend, Mishawaka, Elkhart, Goshen urban agglomeration in Berrien County, Mich., St. Joseph and Elkhart counties, Ind.

7. The lake shore and Benton Harbor area of the fruit country in Berrien County, Mich.

In addition to these seven, there is an additional noncontiguous area, the LaSalle-Ottawa river area in LaSalle County, Ill. This broader definition of the geographical city of the Chicago region is appropriate because the fastest urban growth is now occurring outside of the political city of Chicago in these very sec-

tions; geographical Chicago is growing by expansion of its urban establishments outward from previously established centers. The population is growing faster in the counties (except for Cook County) within the standard metropolitan area. The Indiana and Michigan counties are growing faster than those in Illinois southwest of Cook County. LaSalle and Grundy counties showed a decline in population between the two census years 1940 and 1950. These differences in rate of population growth are reflected in the pattern of land uses. Southern Cook County and northeastern Will County, Ill., are becoming increasingly urban. The growth in nonfarm rural population includes not only commuters to jobs in the city but reflects a population oriented toward new industries locating outside the urbanized area. For example, the Mall Tool Company plant, located at 25000 South Western Avenue in Will County outside Crete, Ill., advertises for employees with the slogan "Enjoy working near your home."

This cross section of the southern zone of Chicago's inner region is divided into two parts by a regional boundary of national significance. If one excepts the urbanized area portion of the map, a marked increase in proportion of the homogeneous agricultural use occurs from east to west. For example, there are no completely agricultural 9-square-mile units in Elkhart, St. Joseph, and Laporte counties. There are 2 in Porter County, none in Lake County, 8 in Will County, 15 in Grundy County, and 38 in LaSalle County. In contrast, the proportion

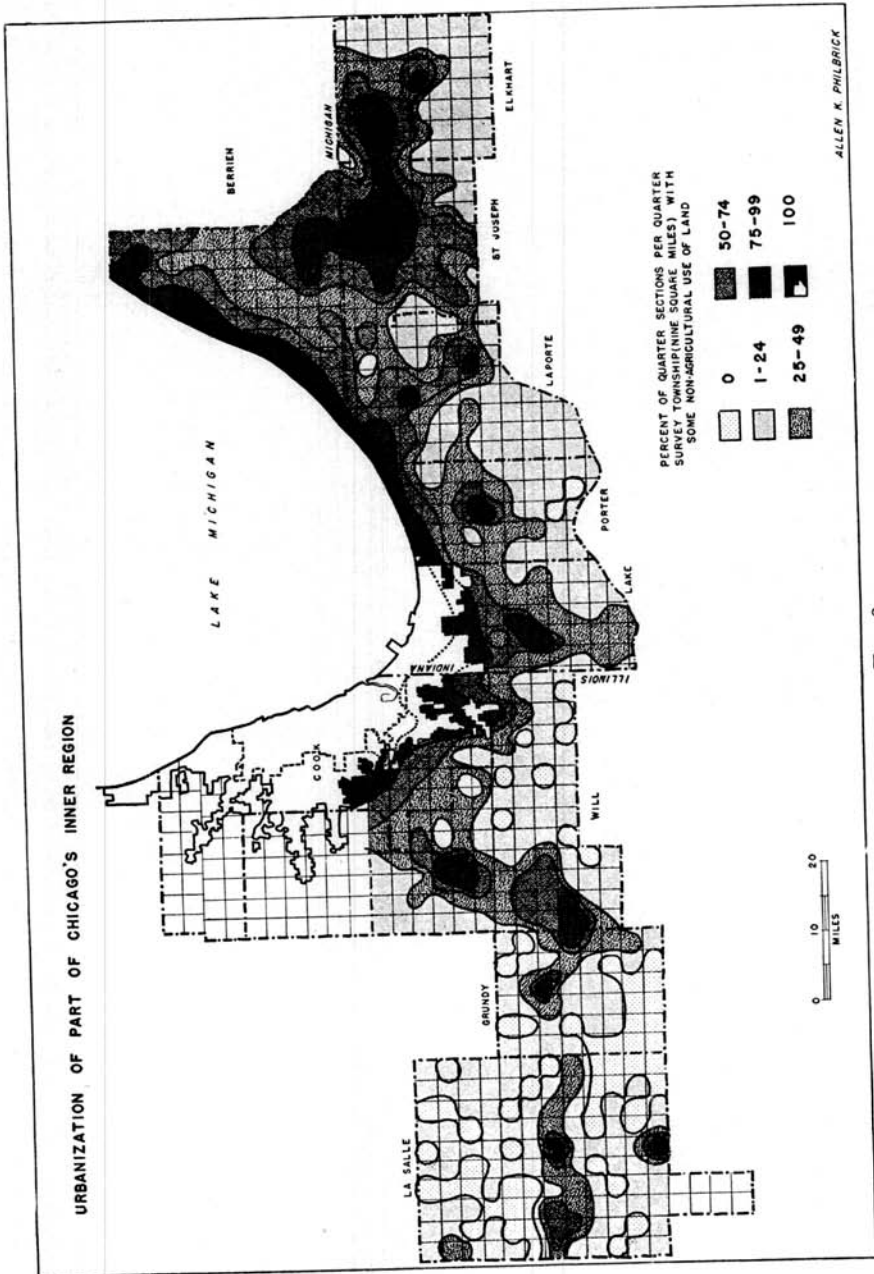


FIG. 3.

of nonagricultural establishments increases steadily from west to east. Approximately along a line from the northeast corner of Will County, Ill., to the southwest corner of Lake County, Ind., runs the zone dividing the manufactural urban, east, from the agricultural west. This line comes closest to Lake Michigan in Will County, Ill.

The broader geographical definition of the city of Chicago is necessary in order to place problems of the urban growth of Chicago into proper perspective. There are some problems that could be studied by further analysis of the land-use patterns and functional organization of the southern belt of Chicago's inner region.

The impact of expanding urban establishments into Chicago's agricultural hinterland reveals the need for policy decisions and means of stabilizing the harmonious flourishing of agricultural uses of land whose frontages upon section-line roads and highways are given over to urban uses.

The simultaneous out-migration of manufactural, residential, and commercial establishments and the establishment of ever increasing enterprises of all types in the countryside raise the need for sound regional planning to prevent the kind of maladjustments which have occurred through unplanned developments within municipalities. Let us avoid having blight follow the flight from blight.

The conclusions of this progress report are incomplete. The visualization of the pattern of land uses in Chicago's inner region must be extended. The existing and resulting maps must be subject to further analysis. The fabric of organization between the establishments in the inner region, its major subcenters, and the major establishments of the urban core of the region must be studied in greater detail. I believe that the map of the gross land uses of Chicago's inner region can be a major tool in a greater understanding of Chicago's future.